Didymocarpus miniatus (Gesneriaceae), a New Species from Peninsular Malaysia

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ABSTRACT. Didymocarpus miniatus (Gesneriaceae), a new species in Didymocarpus sect. Heteroboea, is described from Bukit Bauk in Trengganu, Peninsular Malaysia.

Didymocarpus miniatus Kiew, sp. nov. TYPE: Peninsular Malaysia. Trengganu: Bukit Bauk, R. Kiew RK 3792 (holotype, UPM; isotypes, L, SING).

Differt a Didymocarpo atrosanguineo Ridley foliis petiolatis, pedunculis brevioribus et floribus omnino miniatis.

Herb. Stem woody, up to 1 m tall and 0.7 cm thick. Indumentum of young stem, petioles, and lower surface of veins silky ferrugineous with uniseriate 3-4-celled trichomes ca. 1.5 mm long. Leaves petiolate, spirally arranged on the upper 4-12 cm of stem, separated by internodes up to 2 cm long. Lamina oblanceolate, $(15-)17-24 \times (5.5-)6-10$ cm, apex acuminate, acumen 1-2 cm long, strongly narrowed to base, drying chartaceous, margin crenate, indumentum of 2-celled uniseriate hairs ca. 0.5 mm long, dense and roughly velvety above, less dense beneath, in life dark green above and pale grayish green beneath. Midrib prominent above and beneath, secondary veins 20-21 pairs, plane above and prominent beneath, tertiary veins obscure above, prominent beneath, areoles near the midrib irregular in shape, those toward the margin rectangular. Petiole (1.5-)2(-3) cm long. Flowers solitary. Peduncle slender, 6-12 mm long. Bract pairs ligulate, 3 mm long, finely hairy. Calyx divided to base, lobes linear, 4 mm long, densely hairy. Corolla completely vermilion with two yellow longitudinal nectar guides in the base of the throat, finely pubescent outside, hairs glandular uniseriate, 2-3-celled stalk up to 0.5 mm long, nectar guides with scattered minute ellipsoid vesicles, tube 2.5-3.7 cm long, narrow, 3-4 mm wide in the lower half, dilating distally to 10 mm wide, lobes 5, broadly rounded, upper two 4 × 7 mm, lower three 8 × 6 mm and projecting beyond the upper two. Stamens 2, filament slender, 10 mm long, anthers white, oblong, 2 × 1 mm, connivent, positioned within corolla tube. Ovary 5 × 0.5 mm, style slender, 30 mm long, densely pubescent with glandular hairs, stigma discoid, peltate, 1 mm across. Nectary encircling base of ovary, 0.75 mm high, distally lobed for ca. one-third of its length. Capsule slender, 7.5–8 cm long, finely pubescent when young.

Among the 85-odd Didymocarpus species in Peninsular Malaysia, only D. miniatus has completely vermilion flowers. Only one other species, D. atrosanguineus, has flowers with red lobes, but its corolla tube is usually cream-colored. (One or two plants of this latter species in Sekayu Forest Reserve, Trengganu, produce flowers that are completely red, but they are deep crimson not vermilion.) In lamina indumentum, D. miniatus most closely resembles the broad-leaved form of D. atrosanguineus (Kiew, 1989), but it is readily distinguished from this form by its petiolate leaves.

Didymocarpus miniatus belongs to section Heteroboea, which includes species with large, trumpet-shaped, solitary flowers and large oblanceolate leaves (Ridley, 1923). However, it is atypical of this section, in which the species have leaves with a winged petiole, by its petiolate leaves. In addition, D. miniatus is distinct in its short peduncles, 0.6–1.2 cm long, as opposed to peduncles 2.5–10 cm long in other species in this section.

In common with other large tubular Didymocarpus flowers (Kiew, 1992), the stigma in D. miniatus is discoid and peltate, and the nectary is large and cylindrical (although it is the first species in section Heteroboea to be described with a lobed nectary). The glandular indumentum on the style resembles that of D. quinquevulnerus Ridley, which is also a member of section Heteroboea.

Didymocarpus miniatus has an extremely local distribution, at the foot of Bukit Bauk, where it grows on slopes above small swampy areas or seasonal streams, and at about 20 km south on Bukit Chabang, 5 km inland of Kerteh (G. W. H. Davison, pers. comm.). Both of these hills belong to the same coastal sandstone formation.

Paratypes. PENINSULAR MALAYSIA. Bukit Bauk, S. Anthony SA 602 (UPM), G. W. H. Davison GD5 (UPM), K. M. Kochumen KEP 9491 (KEP).

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